

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-23. (Cancelled, without prejudice or disclaimer)

24. (Currently Amended) A method for removing suspended particles from a soluble protein solution comprising the steps of:

reducing, where present in the soluble protein solution, the amount of DNA and endotoxin in solution, and

filtering the soluble protein solution through highly purified diatomaceous earth, thereby providing a clarified soluble protein solution, ~~and further comprising the step of reducing the amount of DNA and endotoxins,~~ wherein the protein solution is a lysate.

25. (Previously Presented) The method of Claim 24, wherein the soluble protein solution is a secreted protein solution.

26. (Previously Presented) The method of Claim 24, wherein the lysate is a bacterial lysate.

27. (Previously Presented) The method of Claim 24, wherein the lysate comprises a heterologous protein that was obtained by expression.

28. (Previously Presented) The method of Claim 24 in which the amount of DNA in the lysate is reduced by between about 100-fold and about 150-fold.

29. (Previously Presented) The method of Claim 24 in which the amount of endotoxins in the lysate is reduced by between about 1000-fold and about 10,000-fold.

30. (Previously Presented) The method of Claim 24 in which the turbidity of the soluble protein solution is reduced by between about 200-fold and about 300-fold.

31. (Previously Presented) The method of Claim 26 in which the bacteria is *E. coli*.
32. (Withdrawn) The method of Claim 24 further comprising the step of purifying the proteins.
33. (Previously Presented) The method of Claim 24 wherein the step of reducing the amount of DNA and endotoxins comprises flocculation with polyethyleneimine at between about pH 7.3 and about pH 7.7.
34. (Previously Presented) The method of Claim 24 further comprising the step of stirring the soluble protein solution with a highly purified diatomaceous earth before filtering through a filter press.
35. (Previously Presented) The method of Claim 26 wherein the lysate is a comprises SY161, wherein SY161 has an amino acid sequence as shown in SEQ ID NO: 1.
36. (Previously Presented) The method of Claim 24 further comprising the step of resolubilizing refractile bodies in the lysate.
37. (Withdrawn) The method of Claim 28 wherein the yield of the soluble protein is between about 95% and about 100%.
38. (Withdrawn) The method of Claim 29 wherein the yield of the soluble protein is between about 95% and about 100%.
39. (Withdrawn) The method of Claim 30 wherein the yield of the soluble protein is between about 95% and about 100%.